5. Damian

Program Name: Damian.java **Input File: damian.dat**

Damian has always been intrigued by numbers. He is absolutely giddy about prime numbers, but honestly, he loves anything to do with factors. He was investigating numbers and he found one type of number that he really liked. These are what he calls "growing" numbers. That is when, looking at the digits from left to right, they increase.

Here are some examples: 123, 38, 1479, 5, 123456789

These are NOT growing numbers: 73, 762, 12557 (notice those two 5s)

Then Damian got an idea, he wants to find the "growing factors" of a number. These are factors that meet the qualifications of being growing. Write a program to help him out. You will make Damian's day.

Example: The factors of 1122 are: 1,2,3,6,11,17,22,33,34,51,66,102,187,374,561,1122
The growing factors of 1122 are: 1,2,3,6,17,34

Input: Input will consist of an integer N, the number of test cases. The number of test cases will be in range [1,20]. Each subsequent line will contain an integer in the range[1,1000000].

Output: Each line of output will be a line of "growing factors" listed in ascending order with a space between each number.

Sample input:

```
5
72
144
1331
621
554433
```

Sample output:

```
1 2 3 4 6 8 9 12 18 24 36
1 2 3 4 6 8 9 12 16 18 24 36 48
1
1 3 9 23 27 69
1 3 159
```